Upper Mississippi River Nine-Foot Channel Project,
Lock and Dam Complex Number 13
Spanning the Upper Mississippi River between
Fulton vicinity, Whiteside County, Illinois
and
Iowa County, Iowa

HAER No. IL-26

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U. S. Department of the Interior
P. O. Box 25287
Denver, Colorado 80225

HISTORIC AMERICAN ENGINEERING RECORD

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Location: Located on the Upper Mississippi River, just upstream from Clinton, Iowa, and Fulton, Illinois, and 522.5 river miles upstream from the confluence of the Ohio and Mississippi rivers. The complex stretches across the river at a point where the bluffs on the Iowa side are very close to the river. Islands and chutes dot the river beneath the bluff. Eagle Point Nature Center occupies the high ground on the bluff immediately above the lock and dam. The complex of sloughs and islands extending out from the Illinois shore is do dense, it is hard to tell now, after the advent of drainage projects, where they end and the marshy bottom land begins. The lock, esplanade, and main complex access are towards the Illinois side of the river with the movable section of the dam tying to the easternmost lock wall. The earthen embankment section of the dam extends from the movable section to the Iowa shore.
Corps drawings numbers M-L 26 10/1; 10/2, 10/2, 10/9;
HAER photograph numbers IL-26-1 through IL-26-14.

Dates of Construction: 1935-1939

Present Owner: U. S. Government
Rock Island District
Corps of Engineers

Present Use: River navigation/hydrology control

Significance: The U. S. Army Corps of Engineers Nine-Foot Channel Project (1927-1940) represents the culmination of a 100-year effort to improve the navigability of the Upper Mississippi River between the mouth of the Missouri River and Minneapolis, Minnesota. This specific project arose as a response to the farm crisis of the 1920s. Proponents of the New Deal adopted the project and gave speed to its construction as a means of providing public employment during the more general depression of the 1930s. By the 1940s, the completed project had converted over 650 miles of free-flowing river into a series of interconnected reservoirs which ensured enough water for fully loaded modern boats and barges to navigate the system. This constituted a

significant alteration of the natural environment of the Upper Mississippi River. However, the project also brought economic benefits to the communities along and around the river corridor and lead to new recreational opportunities for the entire region.

The Upper Mississippi River Nine-Foot Channel Project inaugurated a new development in slack-water navigation system dam practice in the United States: the adoption of a non-navigable dam containing both roller and Tainter gates. Prior to the Corps' 1930 decision to build non-navigable dams on the Upper Mississippi River, United States Army engineering practice had, nearly universally, been to construct navigable dams, permitting open-river navigation at higher river stages. By 1930, European engineers had been using roller gates in dams extensively for over 25 years. However, only ten such structures had been built in the United States, and these were all located on reaches of rivers where ensuring navigability of any sort was not a design concern. It was not until 1925-1926 that civilian engineers pioneered the use, in the United States, of roller gates in combination with other types of gates. Most of the Corps' Upper Mississippi River project dam designs expanded upon this development, incorporating both roller and Tainter gates. The Corps' shift from navigable to non-navigable dams demonstrate the influence of shipping techniques on navigable waterway improvement technology. It also exemplifies the cautious nature of American Army engineers response to changes in shipping. The Corps' choice of this particular type of non-navigable movable dam illustrates the influence of the hydraulic characteristics of individual rivers on the selection of waterway improvement technologies. It also evidences the manner in which critical engineering design developments are disseminated and become accepted.

Ironically, the Upper Mississippi River Nine-Foot Channel Project also resulted in the obsolescence, by the project's end, of combination roller and Tainter gate dams. Technological advances resulting from the research and development incidental to the design and construction of the 26 lock and dam systems in this project enabled U. S. Army Corps of Engineers to develop both submersible and non-submersible Tainter gates which nearly matched the capabilities of the

roller gates. Once these less expensive and easier operated and maintained gates had been developed, American engineers ceased designing or constructing combination roller and Tainter gate dams. The Corps' creation of a new dam type and its subsequent obsolescence during the course of a single project dramatically illustrates both the evolutionary nature of American engineering in general and the Nine-Foot Channel Project in particular (Text, pages 11 and 49-50. See HAER No. IA-23 for complete history, footnotes and bibliography).

Historian: Mary Yeater Rathbun

August 1988

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Dates of Erection: 1935-1939

2. Architect/Engineer: U. S. Corps of Engineers, Rock Island District

3. Original and Subsequent Owners: U. S. Government--Rock Island District, Army Corps of Engineers

4. Builders, Contractors, Suppliers:

General Contractor--Lock Construction: McCarthy Improvement Company, Davenport, Iowa

Subcontractors:

Milwaukee Bridge Company, Milwaukee, Wisconsin	Fabrication, erection, and placement of structural steel: miter gates, tainter valves, castings, operating machinery, wall armor, floor gratings, miscellaneous structural steel forgings, bronze, brass pipe, handrailing, and rubber seals
E. A. Whitney & Sons, Inc. Kansas City, Missouri	Driving of timber piling under main and auxiliary lock, but not in guide walls
D. E. Keller, Davenport, Iowa	Supplier and delivered derrick stone, riprap, and gravel protection stone; placed riprap and gravel
H. Knudson Company, Chicago, Illinois	Cleaning and painting all exposed steel and machinery
E. A. Alexoff d.b.a. Service Transfer Company, Davenport, Iowa	Removal and disposal of top soil; excavation and fill embankment dike
Herman Jenner, Davenport, Iowa	Construction of roadway ramps, grading spoil areas, and placing top soil
David L. Black, Clinton, Iowa	Furnished riprap from quarry
Automated Gravel Products Company, Muscatine, Iowa	Placing hydraulic fill, placing cofferdam fill and excavating within cofferdam

Allis Chalmers.....Supplying operating machinery and engines

General Contractor--Dam and Central Control Station Construction: McCarthy Improvement Company, Davenport, Iowa

Subcontractors:

E. A. Whitney & Sons, Inc. .....Pile driving
Kansas City, Missouri
F. T. Leeder.....Manufacture of concrete piles
Worden-Allen Company.....Fabrication, erection, and placement of structural steel: tainter and roller gates, service bridge
Chicago, Illinois
Holt Electric Motor.....Electrical wiring
H. Knudson Company.....Cleaning and painting all exposed steel and machinery
Chicago, Illinois
Clinton Engineering Company.....Build central control station
H. C. Baade.....Place roofing
Tri-City Tile and Mantle Company...Place tile floor
Davenport, Iowa
George Henderson.....Install plumbing and heating
Turner Electric Company.....Wiring control station
R. D. Speers Company.....Electric wiring in control station
J. T. Wright.....Drill deep wells
E. C. Schroeder Company.....Operate ferry
McGregor, Iowa
A. A. Rounds.....Move temporary buildings

General Contractor--Power, Control, and Lighting System Construction: Dearborn Electrical Construction Company, Chicago, Illinois

General Contractor--Esplanade Construction: McCarthy Improvement Company, Davenport, Iowa

5. Original Plans and Construction:

U. S. Army Corps of Engineers, Rock Island District, plans submitted by senior engineer E. E. Abbott.

6. Alterations and Additions:

Item	Year
Construction-1,064-foot cell foundation concrete extension to upstream end of river wall of lock	1941-1942

Land wall and lock gate handrails lowered by one rail and new handrail made from salvaged materials installed on both edges of each lock wall and on upstream side of walkways on top of lock gates	ca. 1945
Construction-handrail on upstream side of dam service bridge	ca. 1945
Construction-further transitional of upper approach dike	1950
Construction-visitor's center in esplanade	ca. 1960
Construction-frame air-lock vestibule at upstream end door of central control station	ca. 1970
Addition-boat launches on lock walls	ca. 1970
Replacement - haulage units	ca. 1971 and 1973
Construction-metal and glass shelters around land wall control cabinets and at ends of the guidewalls of lock	ca. 1972
Removal-Lockmaster/Assistant Lockmaster residences from esplanade	ca. 1975
Removal-standby generator from machinery room of central control station	ca. 1975
Construction-metal and glass shelters around land wall control cabinets and at end of the guidewall of lock	ca. 1972
Removal-Lockmaster/Assistant Lockmaster residences from esplanade	ca. 1975
Removal-standby generator for machinery room of central control station	ca. 1975
Construction-emergency generator building	ca. 1975
Replacement--wooden plank hatches on dam service bridge with aluminum ones	ca. 1979

Installation-traveling mooring kevels extending length of guidewalls of lock	1980
Construction-new workshop building	1980-1981
Construction-concrete, metal, and fiberglass covers over machine pits on main lock	1983
Replacement-crane on dam	1983-1984
Replacement-light posts and light fixtures around lock	1984
Construction-concrete mooring cell in upper pole on a line with the intermediate wall of the lock	1984
Rehabilitation--central control station	1985

B. Historical Context:

The special board of engineers which initially deaigned the Nine-Foot Channel Project between 1927 and 1931 did not see the construction of Lock and Dam Complex 22 as a high priority and placed it in the third group of projects to be constructed.

The Lock and Dam Number 13 site was inaccessible from the nearest highway. As a result, the McCarthy Improvement Company, general contractor for the lock, dam, and esplanade, had to construct a dike road to the lock and dam site through the sloughs and islands and marshy bottom lands of the Illinois ahore. It was also necessary to divert Johnaon Creek, so that the creek entered the river downstream from the lock site. The operation of a ferry was necessary for the construction of the dam and central control station.

The Rock Ialand District designed and built Lock and Dam Complexes Numbers 13, 14, and 17 concurrently as a group. E. E. Abbott signed the contract drawings for Locks 13 and 14 in January 1934; for Lock 17 in February 1934, for Dam 14 in August 1936, and for Dams 13 and 17 in September 1936. The district let one contract on August 2, 1935, to Charlea H. Langman of Rock Island, Illinois, for the construction of the temporary buildings at all three of the complexes. Construction of the temporary buildings was the first step in the construction process at all of the 1931-1939 Nine-Foot Channel Project complexes. However, unlike in the other groups of complexes constructed concurrently by the Rock Island District--the pair
of 1935 dams (11 and 18) and the summer of 1936 dams (12, 21, and 22)--the

district was not particularly innovative in the designs for this group. The only significant design change initiated at these complexes was the new taller, flat-roofed, brick-faced style central control stations' construction which the engineers made part of the dam construction contracts rather than of the lock construction contracts as had been the practice at the six of seven complexes previously begun n the Rock Island District which included control stations. This relative lack of design development at these complexes is understandable in light of the fact that they were the last three complexes in ths Rock Island District to be designed and upon which construction began.

Most specific items of engineering significance at these complexes relate to their including examples of the most mature forms in the Rock Island District of the complex elsments which evolved during the course of the 10 year, Upper Mississippi River Nine-Foot Channel Project. Complexes 13 offers good examples of the final end products of the evolutionary design process as it occurred in the Rock Island District, but is not the prototypical mature complex because it includes an unusual feature, an approximately 8,940-foot-long non-submersible dike extending from landward from the land wall of the main lock. This is the only complex in the Rock Island District to include a portion of its dam on the landward side of the main lock.

The dam system of Complex 13 consists of 10 2b-type Tainter gates, three submersible roller gates, three non-overflow earth and sand-filled dikes, two transitional dikes, and a submersible earth and sand-filled dike. Lock dimensions are the standard 110 feet by 600 feet with additional footings for an auxiliary lock of standard dimensions. Lock lift is 11 feet. Normal upper pool elevation is 583.0; this is about 17 feet above the tail waters below the dam at low water. When both pools are at their normal elevation, the difference is reduced to 11 feet or less.

The lock and dam elements of the complex took about three and a half years to complete, at a cost of $5,135,000. The complex was placed in operation as a unit of the Upper Mississippi River navigation system on May 13, 1938. It was the seventh of the 1931-1940 Upper Mississippi River Nine-Foot Channel Project complexes in the Rock Island District to go on line.

PART II. TECHNOLOGICAL INFORMATION - LOCK

A. General Statement:

1. Design Character: Standardized Ohio-Mississippi Lock Design. Drawing Number M-L 13 20/1.

2. Condition of Fabric: Good

B. Description of General Layout and Principal Elements:

1. Overall dimensions: Main lock chamber - 110 feet wide by 600 feet long by 40 feet high: adjoining incomplete auxiliary lock chamber 110 feet wide by 40 feet high. Lift - 11 feet. Drawing Number M-L 13 20/1.

2. Foundations: 30-foot round timber pile with 25 to 30-foot sheet piling cutoff walls enclosing outside limit. Drawing Number M-L 13 20/2..

3. Walls: Reinforced monolithic concrete with steel rub bars embedded in their chamberward faces upstream and downstream from the lock gates. Land wall is about 9,000 feet from Chicago, Burlington, and Quincy Railroad tracks on the Illinois shore. Intermediate wall is riverward wall of main lock and landward wall of incomplete auxiliary lock. River wall of auxiliary lock ties to dam on west. Drawing numbers M-L 13 20/4, 20/6, 20/9, 20/19, 20/20, 40/10, 10/5A, 10/6, 10/10.

4. Structural System: See above.

5. Bullnoses: Concrete configurations at each end of intermediate wall. Drawing number M-L 13 20/19.

6. Upper and Lower Guidewalls: Extended monolithic reinforced concrete walls extending the landwall out of the lock chamber at either end to assist guiding of barge traffic into the lock. Drawing number M-L 13 20/11.

7. Mooring Levee Extension to Upstream Guidewall: 1,064-foot-long stone and earth-filled extension to upstream guidewall. Added in 1941-42.

8. Transition Section Extension to Mooring Levee Extension of Upstream Guidewall: Sloped extension to upstream end of mooring levee leading to more natural ground elevation upstream from mooring levee. Added in 1950.

9. Stage Recorder: Small concrete housing located at the end of the downstream guidewall. Equipment housed for the recording of river stages.

C. Mechanical Equipment:

1. Tainter Valves: Four cable drive lock valves of steel construction with electric motorized assembly. Valves are located in wells in lock

walls. They are operated by switches in weather-proof control cabinets on lock walls, with a cabinet beside each gate recess. Control cabinets on landwall surrounded by metal and glass shelters since mid-1970s. Drawing numbers M-L 13 25/1A; 28/1A, 20/12.

2. Gates: Two pairs of miter gates on main lock and one pair on upstream end of incomplete auxiliary lock. All three pairs are balanced on stainless steel pintels. Those in main lock are operated by arms, gears, and electric motor assemblies. Motor assemblies housed in machinery pits in lockwalls adjacent to each leaf. Machinery pits for main lock machinery covered by raised concrete, metal and fiberglass enclosures in 1983. The gates are operated by switches in control cabinets. Bumper lines of chamber face of gates also of stainless steel. All other associated metal parts are of steel, stainless steel, or steel/nickel alloy. Drawing numbers M-L 13 21/1, 21/17, 22/1.

3. Lighting: Various freestanding single and double head lighting standards, installed in 1984.

4. Plumbing: Lock is watered by the Tainter valves (see above) serving a system of cast-in-place tunnels that enable the water level to be controlled on the interior of the lock.

5. Haulage Unit: Motorized winch assembly to assist towing of barges through lockage. Replacement units were installed in the mid-1970s.

6. Traveling Mooring Kevels: Two large cleats on rails which extends the length of both the upstream and downstream guidewalls. Installed in 1980, the kevels are used to assist towing of barges through lockage.

D. Other Elements:

1. Auxiliary Lock: Fixed miter gate without machinery and partial walls are located riverward of the main lock. It is equipped with wells for machinery placement, but was never completed or put into service. Drawing Numbers M-L 13 20/1; 20/5, 40/1.

2. Mooring Cell: Concrete cell foundation structure upstream from landwall. To assist in counteracting outdraft.

4. Boat Launches: Built ca. 1970, the launches are single-armed derricks of metal construction.

PART III. TECHNOLOGICAL INFORMATION--MOVABLE SECTION OF DAM

A. General Statement:

1. Design Character: Combination roller/tainter low dam system design. Drawing Number M-L 13 40/1.

2. Architectural Character: 2b roller gate piers. Drawing Number M-L 13 40/2

3. Condition of Fabric: Excellent.

B. Description of Exterior

1. Overall Dimensions: 1,066 feet in length. Drawing Number M-L 13 40/1.

2. Foundation: 30-foot round timber pile with 25 to 30 feet sheet piling cut on walls enclosing outside limit.

3. Pier House Walls: Monolithic reinforced concrete. Drawing Numbers M-L 13 41/1 and 41/2.

4. Structural System: Monolithic concrete/structural steel.

5. Fenders: Concrete fenders located at the base of each pier.

6. Openings:

a. In Overall Structures: 13 water-channels and 2 archways; clustered in groups by sizes, east to west--4 water-channels ca. 64 feet wide; 3 water-channels ca. 100 feet wide; 6 water-channels ca. 64 feet wide; 2 archways ca. 60 feet wide. Drawing Number M-L 13 40/1.

b. In Pier Houses: 1 doorway, 1 floor hatch, and 11 three-pane windows for each of four pier houses. Drawing Number M-L 13 40/2, 41/4.

(1) Doorways and doors: 4

(2) Windows: 44

c. In steel diaphragm section of roller gate piers: 1 doorway and door in each of the four steel diaphragm sections. Four doorways and doors. Drawing Number M-L 13 40/2.

d. In Access Tower: 2 doorways and doors. Drawing Number M-L 13 40/4.

7. Roofs:

a. Shape, covering: Pier houses have flat roofs covered in membrane/tar composition. Drawing Number M-L 13 41/3.

b. Towers, abutments, piers: 2 abutments; lockwall abutments includes access tower; 14 piers (8 tainter gate piers, 2 2b-style roller gate piers, 2 2b-style transition piers or combination tainter and roller gate piers, and 2 service bridge extension piers); 4 2b-style piers have pier house towers. Drawing Numbers M-L 13 40/1; 40/4; 40/18; 40/3; 40/2; 40/10; 40/12; 40/14; 40/26.

8. Service Bridge:

a. Shape: Arched spans in a segmental series.

b. Materials: Structural steel. Drawing Number M-L 13 53/1.

C. Description of General Layout and Principal Elements:

1. Access Plan: Simple stairway in the access tower which itself is part of the abutment resting on the riverwall of the auxiliary lock. This stairway leads to service bridge deck where walkway/rail tracks extend full length of dam. Access to all four pier houses directly off deck. Access to storage yard below easternmost 200 feet of dam by simple exposed stairway at the western end of service bridge. Drawing Numbers M-L 13 40/1; 40/4; 40/9; 53/1; 53/9; 53/10.

2. Stairways: In access tower--reinforced concrete with pipe railing; at end of service bridge extension--open metal with pipe railing.

3. Flooring: In pier houses and access tower--reinforced concrete; on service bridge deck--wooden plank. Drawing Numbers M-L 13 40/4; 40/7; 53/10.

4. Wall and Ceiling Finish: Reinforced concrete. Drawing Numbers M-L 13 40/4; 40/5.

5. Hardware: Brass.

D. Mechanical Equipment:

1. Movable Gates: Ten 64-foot-wide by 20 feet high, 2b-type Tainter gates operated by line shafts and motors housed in installations above each gate; three 100-foot-wide by 20 feet high, submersible roller gates operated on tooth track by chain driven hoist machinery located in pier house adjacent to each gate. Drawing Numbers M-L 13 48/1; 47/1; 55/1; 54/2.

2. Movable Crane: 30-ton vertical lift electric crane with 70-foot boom (replaced in ca. 1980) used for moving parts and equipment. Sits on original (ca. 1938) crane trolley which also supports additional bridge crane used for lifting emergency bulkheads, etc. Trolley rides on 15-gauge track system running entire length of service bridge deck. Drawing Numbers M-L 13 53/11; 53/13; 58/5.

3. Lighting: Fixtures as of time of installation 1938-1939 -- Rewiring may have taken place over the years. Extent is unknown. Drawing Number M-L 13 56/1.

E. Other Elements:

1. Earth Dikes: One dike east of main lock and five dikes in segmental series west of movable section of the dam. 728-foot-long, non-overflow earth and sand-filled dike with riprap revetment topped with clay and gravel road extends from western edge of movable section of dam. Followed by 90-foot-long 10 to 1 slope earth and sand-filled transition dike leading to a 1,650-foot-long submersible earth and sand-filled dike. This, in turn, is followed by another 90 foot long 10 to 1 slope earth and sand-filled transition dike. The remaining 1,315 feet of the dam is non-overflow earth and sand-filled dike with riprap revetment topped with clay and gravel road extending west from second transition dike to high ground about 1,700 feet from the Iowa shore. The final section of dike extends about 8,940 feet east from the land wall of the main lock along the Johnson Creek Diversion to near the Chicago, Burlington and Quincy Railroad tracks on the Illinois shore. Drawing Numbers M-L 13 40/1, 52/1, 52/2, 52/4, 52/5, 10/10.

Emergency Bulkheads: Temporary block units of riveted structural steel girder construction placed in gate openings in periods of emergency or repair. Drawing Numbers M-L 13 58/1, 58/4.

2. Emergency Bulkhead Car/Tracks: Flat cars designed to store and access bulkheads. Located in storage yard. In the past, one of these cars was from time to time hoisted up to the service bridge deck and towed behind the movable crane. Repair materials were hauled on the car when used in this way. Drawing Numbers M-L 13 53/12, 40/25.

3. Storage Yard: 200-foot-long area extending from west abutment under service bridge extension, i.e., under last two archways in dam. The yard contains replacement parts for gates, bulkheads on track cars and related items. Drawing Number M-L 13 40/25.

PART IV: TECHNOLOGICAL INFORMATION-ESPLANADE AREA

A. Description of Esplanade--General Layout:

1. Design Character: Standardized park/service area and access road component. It was originally designed to accommodate the Central Control Station, Lockmaster and Assistant Lockmaster Residences, parking, an access road, and other service-related functions. The approximate 9,000-foot-long access road rests on the earthen dike extending east from land wall of the main lock. Major site alterations have occurred since that time and are noted in the following items.

2. Architectural Character: 2b Central Control Station. Drawing Number M-L 13 70/2.

3. Historic Landscape Design: Based on standardized designs--see drawings for Esplanade and Lockmaster's residences. Drawing Number M-L 13 38/1.

B. Condition of Site and Structures: Altered

1. Central Control Station - Exterior: Standardized 2b construction. Major alteration in 1985-86 rehabilitation project. For original Drawing Numbers M-L 13 70/2, 70/3. Drawings for rehabilitation available from Rock Island District.Drawing Number M-L 22 70/1.

a. First Floor: Contains machinery room where central control panel is located, main office, work room, and mezzanine and basement stairway access. Standby generator which dominated machinery room removed in mid-1970s. Drawing Number M-L 13 70/1.

b. Mezzanine: Contains bathroom and locker room. Drawing Number M-L 13 70/1.

b. Basement: Contains storage and equipment rooms. All interior finishes altered from original construction. Drawing Number M-L 13 70/1.

2. Lockmaster's/Assistant Lockmaster's Residences (standardized, Colonial Revival with side porch): The structures has been moved off site. All related structures have been demolished.

3. Outbuildings: Various shed and service buildings have been erected from time to time as demands required--none have particular significance or contribute to the site. A masonry visitors' center including restrooms and a roof top observation platform was constructed in ca. 1960. The center is identical to the one at Lock and Dam Complex Number 19 which was built in 1959. A metal emergency generator building was constructed just upstream from the Central Control Station in the mid-1970s. It is a standardized element. A new garage of brick and steel was erected on the old site of the Lockmaster's residence ca. 1980. This element is also standardized.

PART V: SOURCES OF INFORMATION

A. Original Architectural/Engineering Drawings: Mississippi River Lock and Dam 13, lock operations folio, August 1937, file No. GP59-1; Mississippi River, Lock and Dam 13, dam operations folio, and Rock Island District Office-Construction drawings--Mississippi River Locks and Dams 1937-1986, (passim), Rock Island District Library, Clock Tower Building Annex, Rock Island, Illinois.

B. Early Views: Approximate 1,000 high quality 8x10 black and white construction photographs: Lock and Dam Number 13-Photo Book groups 1320, (2 vols.), 1310 (3 vols.), 1359, and "Roadways. Locks 10, 11, 13, 14," Rock Island Arsenal, Rock Island, Illinois.

C. Interviews: Present and past personnel--Lock and Dam Number 13, near Fulton, Illinois.

D. Bibliography:

1. Primary and unpublished sources: National Archives Record Group 77, Entry 81, Chicago National Archives and Records Center; National Archives Record Group 77, Entries 111 and 112, Washington National Records Center, Suitland, Maryland; Chief of Engineers Annual Reports, 1927-1987; see also bibliography in HAER No. IA-23 narrative history.

2. Secondary and published sources: See bibliography in HAER No. IA-23 narrative history.

E. Likely Sources Not Yet Investigated: National Archives Record Group 77, Entry 107 (132 linear feet), Washington National Records Center, Suitland, Maryland; National Archives Record Group 77, Entry 1656, exact repository unknown; and National Archives Record Group 77, Entries 608, 609, and 610 (collective total 5 linear feet), National Archives, Washington, DC.

F. Supplemental Material: 83 film canisters of 1931-1939 silent movies of the construction process taken by the Corps of Engineers, Rock Island District Office, Rock Island Arsenal, Rock Island, Illinois.

G. Notes: The notes for this outline are contained in the notes section of HAER No. IA-23 narrative history.